

## J01A500N1R0C14T



|     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| J   | 01  | A   | 500 | N   | 1R0 | C   | 14  | T   |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |

### (1) Company title

| Company title |                  |
|---------------|------------------|
| J             | SHANGHAI JEMLEAD |

### (2) Product

| Product Code |                           |
|--------------|---------------------------|
| 01           | MULTILAYER CHIP CAPACITOR |

### (3) AEC-Q200

| Code | AEC-Q |
|------|-------|
| A    | YES   |

### (4) Rated Voltage

| Code | Rated Voltage(Vdc) |
|------|--------------------|
| 500  | 50                 |

### (5) Temperature Characteristics

| Code | Temperature Characteristics | Temperature Range |
|------|-----------------------------|-------------------|
| N    | NP0                         | -55°C to +125 °C  |

### (6) Capacitance

| Code | Capacitance Range |
|------|-------------------|
| 1R0  | 1.0pF             |

### (7) Capacitance Tolerance

| Code | Tolerance |
|------|-----------|
| C    | ±0.25pF   |

### (8) Chip Size

| Code | Length*Width |
|------|--------------|
| 14   | 1.60 * 0.80  |

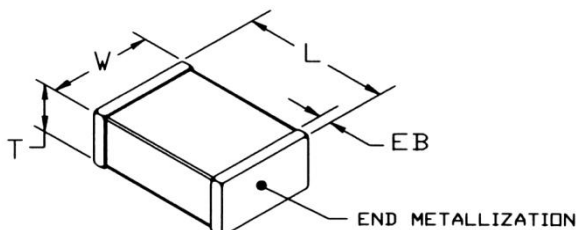
### (9) Tapping

| Code | Type            |
|------|-----------------|
| T    | PAPER TAPE/REEL |

### \*Supplement

| Test Parameters             |
|-----------------------------|
| 1 MHz±50KHz, Values ≤ 100pF |
| 1 KHz±50Hz, Values > 100pF  |
| @ 1.0 VRMS, 25°C            |

## Dimensions And Structure



### Mechanical Characteristics

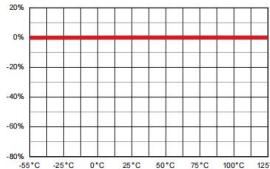
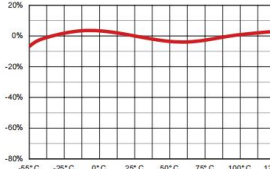
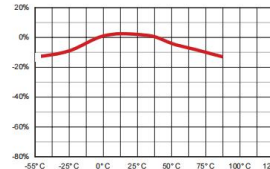
Unit: mm

| LENGTH "L" | WIDTH "W" | THICKNESS "T" | ENDBAND "EB" |
|------------|-----------|---------------|--------------|
| 1.6±0.1    | 0.8±0.1   | 0.8±0.15      | 0.30±0.1     |

## Electrical Characteristics

|                         |  |
|-------------------------|--|
| Temperature coefficient | 0±30ppm / °C<br>(-55°C TO +125°C)  |
| Dissipation Factor      | 0.1% Max, 25°C   |
| Insulation Resistance   | > 1000 Ohm-Farad OR 100 G-Ohms,<br>whichever is less @ WVDC, 25°C<br>( @ 125°C IR is 10% of 25°C<br>requirement) |
| Dielectric Strength     | 2.5 X WVDC, 50 mA max  |

## Electrical Characteristics

| PARAMETER                | NPO  |               | X7R  |               | X5R  |              |
|--------------------------|--|---------------|--|---------------|--|--------------|
|                          | 0± 30 ppm/°C   | -55 to +125°C | ± 15%  | -55 to +125°C | ± 15%  | -55 to +85°C |
| TEMPERATURE COEFFICIENT: |    |               |            |               |  |              |
| DISSIPATION FACTOR:      | .001 (0.1%) max  |               | WVDC ≥ 50 VDC, DF = 2.5% max<br>WVDC = 25 VDC, DF = 3.0% max<br>WVDC = 16 VDC, DF = 3.5% max |               | For Vrated ≥ 50 VDC, DF = 5% max<br>For Vrated ≤ 25 VDC: DF = 10% max                |              |
| AGING:                   | None   |               | 2.5% / decade hour   |               | 2.5 % / decade hour  |              |
| INSULATION RESISTANCE:   | 1000ΩF or 100GΩ<br>whichever is less @ 25°C, WVDC  |               | 500ΩF or 50GΩ<br>whichever is less @ 25°C, WVDC  |               | 100ΩF or 10GΩ<br>whichever is less @ 25°C, WVDC                                      |              |
| DIELECTRIC STRENGTH:     | For Vrated = 6 - 200 VDC, DWV = 2.5 X WVDC, 25°C, 50mA max.<br>For Vrated = 201 - 499 VDC, DWV = 2.0 X WVDC, 25°C, 50mA max.<br>For Vrated = 500 - 999 VDC, DWV = 1.5 X WVDC, 25°C, 50mA max.<br>For Vrated = 1000+ VDC, DWV = 1.2 X WVDC, 25°C, 50mA max. |               |  |               | DWV = 2.5 X WVDC, 25°C, 50mA max.  |              |
| TEST PARAMETERS:         | C > 100 pF; 1kHz ±50Hz; 1.0±0.2 VRMS<br>C ≤ 100 pF 1Mhz ±50kHz; 1.0±0.2 VRMS   |               | 1kHz ±50Hz; 1.0±0.2 VRMS   |               | 1kHz ±50Hz; 0.5±0.2 VRMS   |              |
| NOTES:                   | Tanceram IR = 100 ΩF or 10 GΩ<br>Tanceram DF for Vrated ≥ 50 VDC = 5% max.<br>Tanceram DF for Vrated ≤ 25 VDC, DF = 10% max  |               |  |               |  |              |